CATERPILLAR

Service Manual

330F L EXCAVATOR

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Product: EXCAVATOR
Model: 330F L EXCAVATOR MBX
Configuration: 330F L Excavator MBX00001-UP (MACHINE) POWERED BY C7.1 Engine

Disassembly and Assembly
326F, 329F and 330F Excavators C7.1 Engine Supplement
Media Number -UENR3309-05 **Publication Date -01/09/2015** **Date Updated -29/08/2018**

i05400431

Aftercooler - Remove and Install

SMCS - 1063-010

Removal Procedure

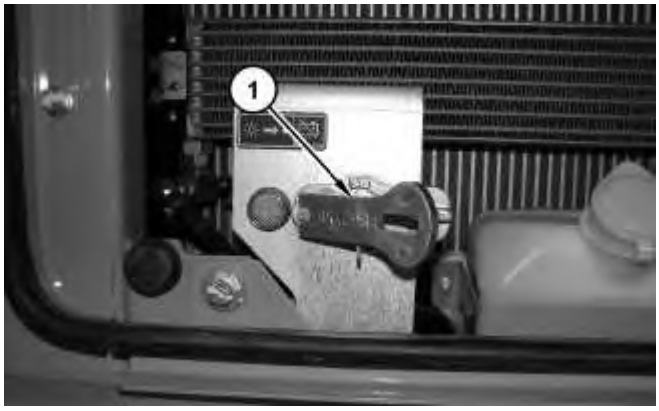

Illustration 1 g03412184

1. Turn disconnect switch (1) to theOFF position.

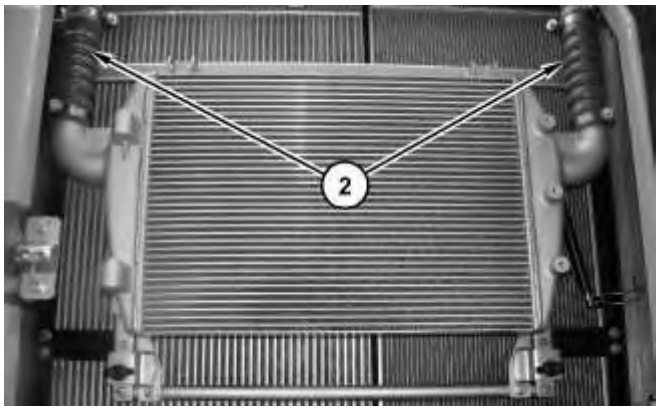

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Illustration 2 g02463617

2. Remove hose assemblies (2).

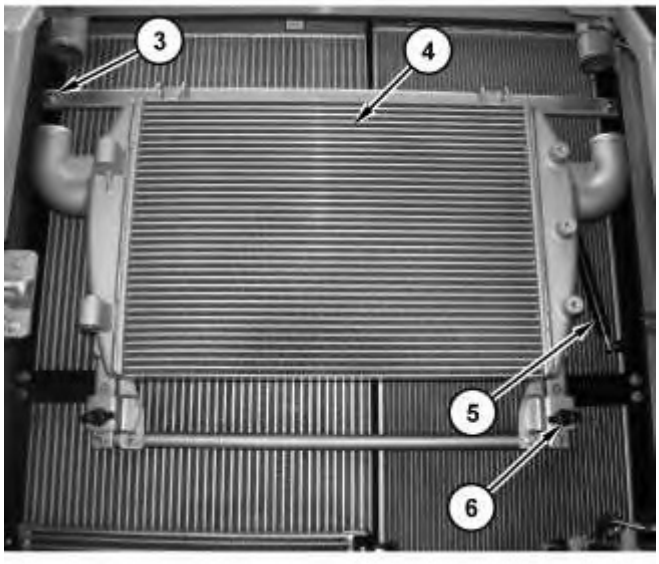

Illustration 3 g02463618

3. Remove bolt (3). disconnect cylinder (5). Turn latch (6) and remove aftercooler (4).

Installation Procedure

1. Install aftercooler (4) in the reverse order of removal.

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i05393802

Air Cleaner - Remove and Install

SMCS - 1051-010; 1054-010

Removal Procedure

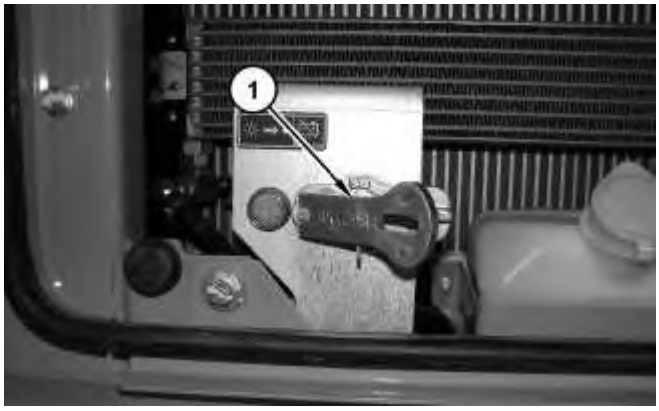

Illustration 1 g03409997

1. Turn disconnect switch (1) to the OFF position.

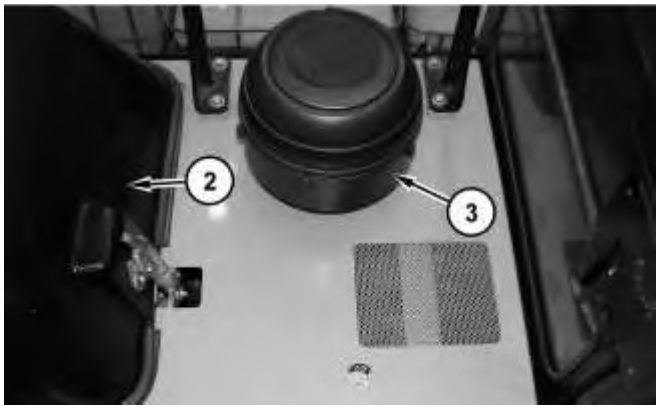

Illustration 2 g03410001

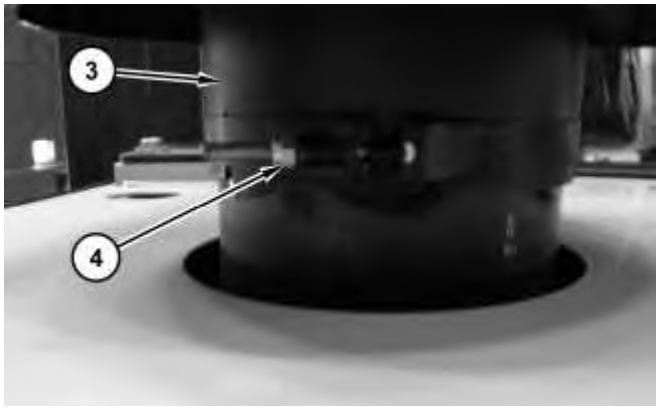

Illustration 3 g03410005

2. Open hood (2). Remove clamp (4) and cap assembly (3).

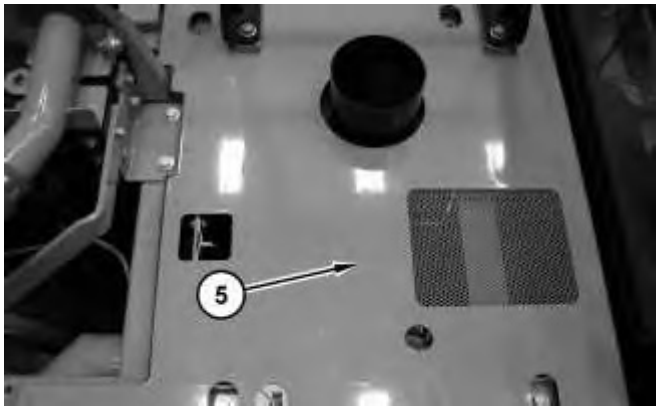

Illustration 4 g03410010

3. Remove panel assembly (5).

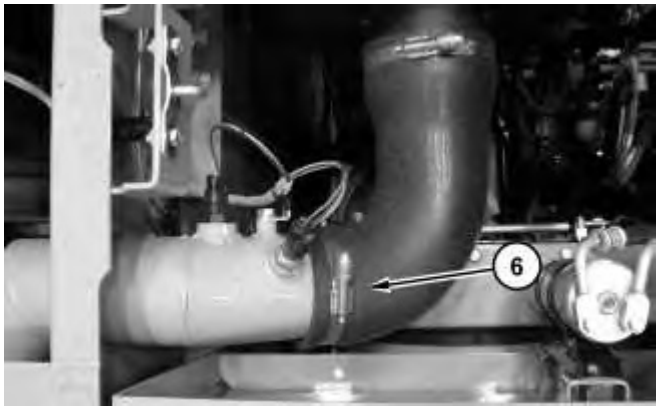

Illustration 5 g03410011

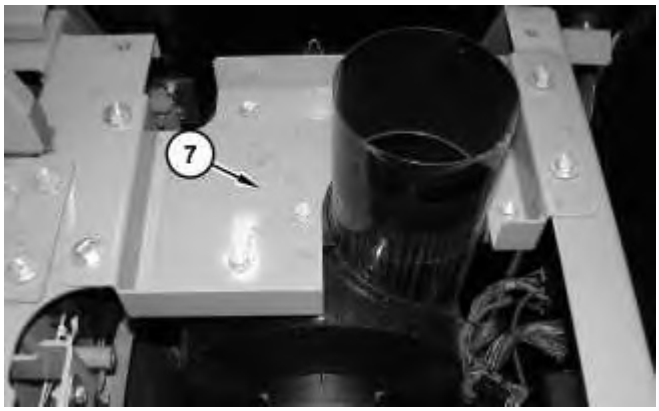

Illustration 6 g03410015

4. Remove elbow (6). Remove the bolts and air cleaner (7).

Installation Procedure

1. Install air cleaner (7) in the reverse order of removal.

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Configuration: 330F L Excavator MBX00001-UP (MACHINE) POWERED BY C7.1 Engine

Disassembly and Assembly
326F, 329F and 330F Excavators C7.1 Engine Supplement
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i05388997

Alternator - Remove and Install

SMCS - 1405-010

Removal Procedure

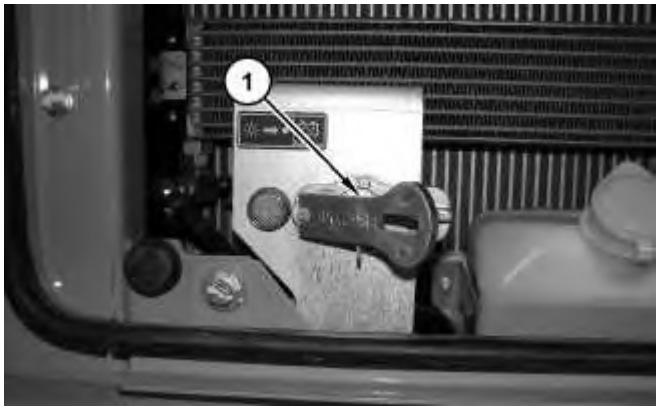

Illustration 1 g03407304

1. Turn disconnect switch (1) to the OFF position.

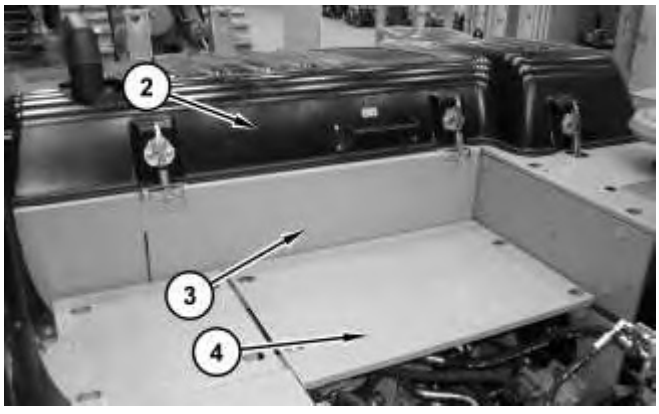

Illustration 2 g03407308

2. Open hood assembly (2). Remove panels (3) and (4).

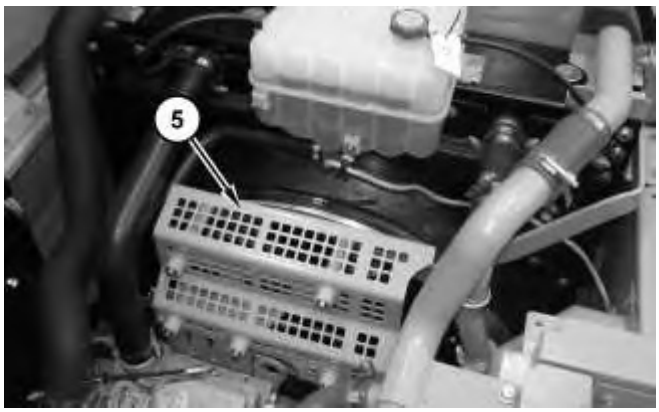

Illustration 3 g03407312

3. Remove guard assembly (5) in order to remove drive belt. Remove the drive belt.

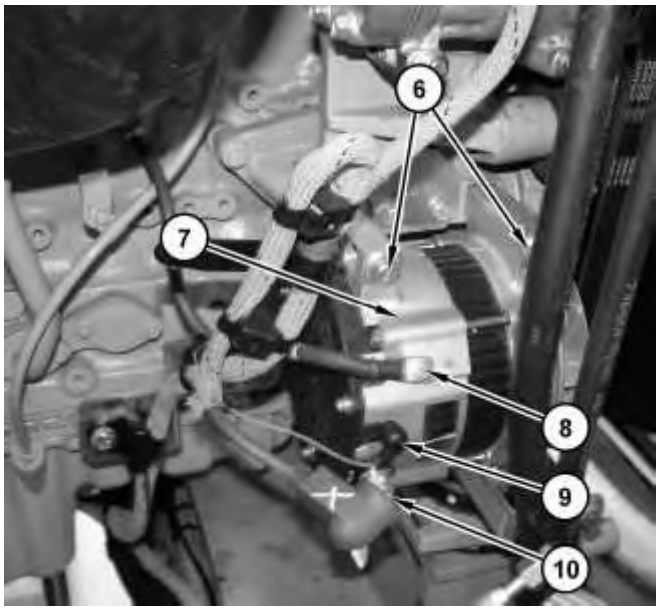

Illustration 4 g03407317

4. Disconnect cable assemblies (9), (10) and (8). Remove bolts (6) and alternator (7).

Installation Procedure

1. Install alternator (7) in the reverse order of removal.

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Disassembly and Assembly
326F, 329F and 330F Excavators C7.1 Engine Supplement
Media Number -UENR3309-05 **Publication Date -01/09/2015** **Date Updated -29/08/2018**

i05497912

Battery - Remove and Install

SMCS - 1401-010

Removal Procedure

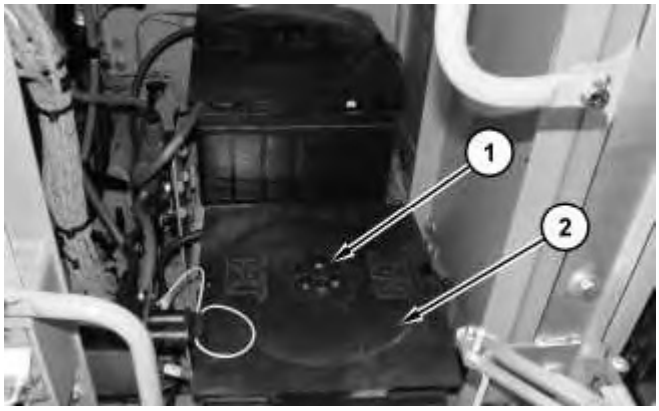

Illustration 1 g02386697

1. Remove nut (1) and cover (2).

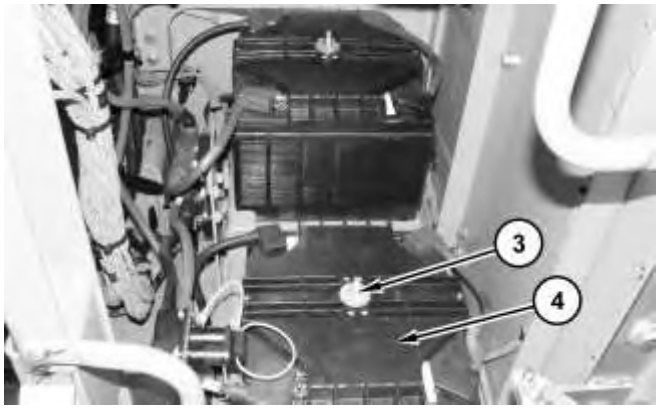

Illustration 2 g02386717

2. Remove nut (3) and battery hold-down (4).

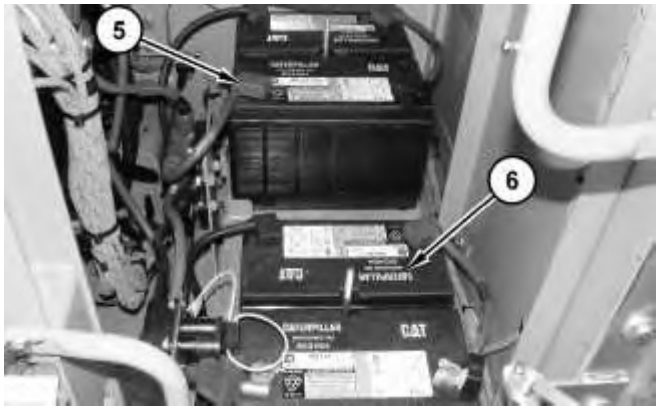

Illustration 3 g02386776

3. Disconnect cable assemblies (5). Use two people in order to remove battery (6). The weight of battery (6) is approximately 27 kg (60 lb).

Installation Procedure

1. Install battery (6) in reverse order of removal.

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Disassembly and Assembly
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i05397340

Belt Tightener - Remove and Install

SMCS - 1358-010

Removal Procedure

Illustration 1 g02463067

1. Remove guard assembly (1).

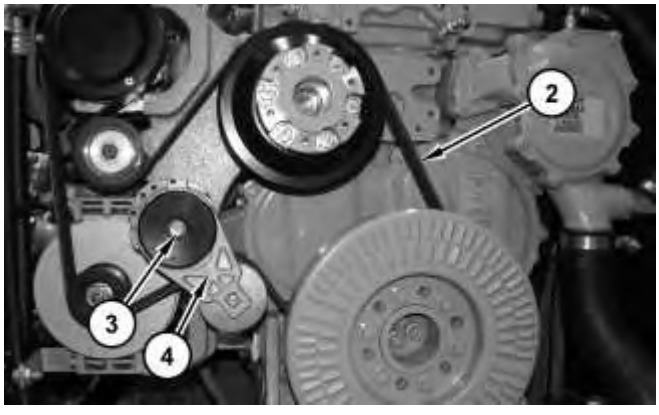

Illustration 2 g02463068

Cooling package removed for photo purposes only.

2. Remove belt (2), bolt (3) and belt tensioner (4).

Installation Procedure

1. Tighten bolt (3) to a torque of 50 ± 5 N·m (37 ± 4 lb ft).

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i05392102

Clean Emissions Module - Remove and Install

SMCS - 1050-010; 7279-010

Removal Procedure

Start By:

a. Drain coolant down to a suitable level.

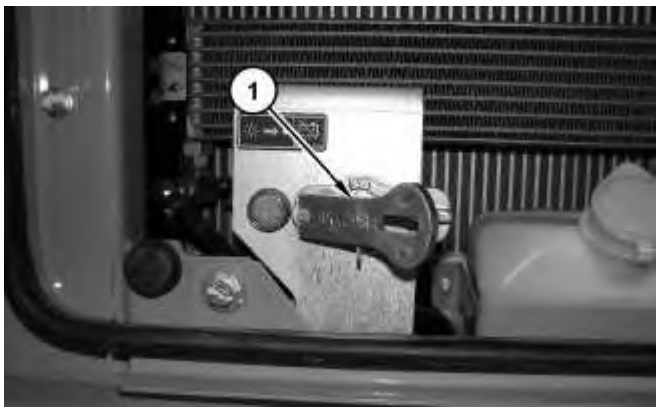

Illustration 1 g03409072

1. Turn disconnect switch (1) to the OFF position.

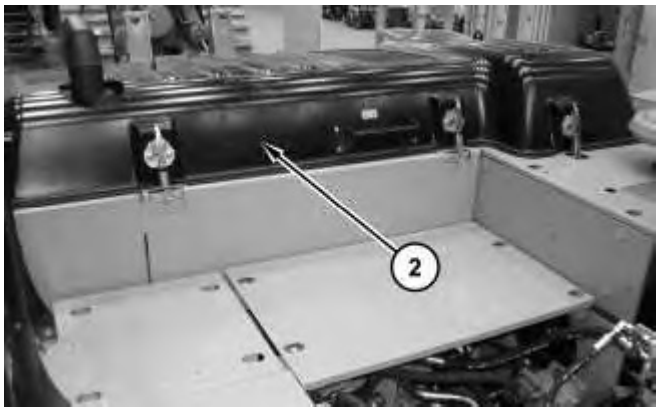

Illustration 2 g02430440

2. Open hood (2).

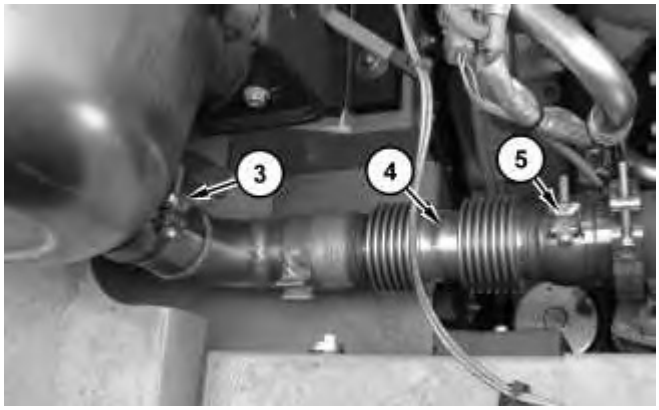

Illustration 3 g03409074

3. Disconnect clamps (3) and (5). Remove tube assembly (4).

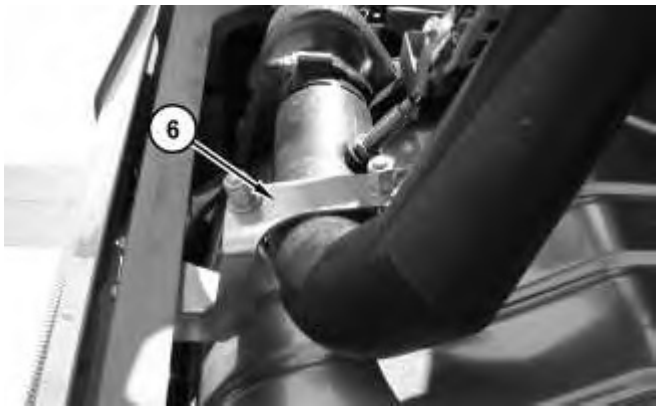

Illustration 4 g03409077

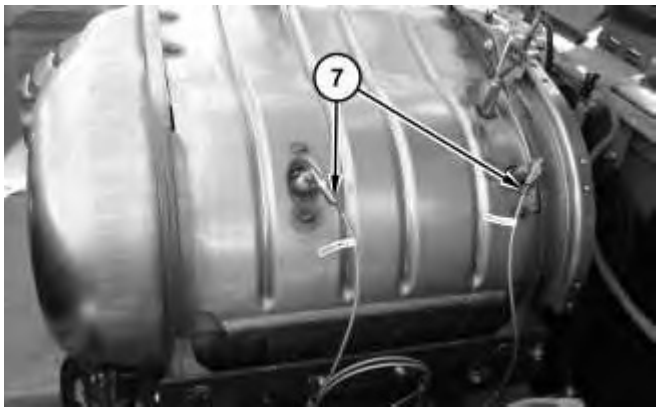

Illustration 5 g03409080

4. Remove bracket (6). Disconnect soot sensor wires (7).

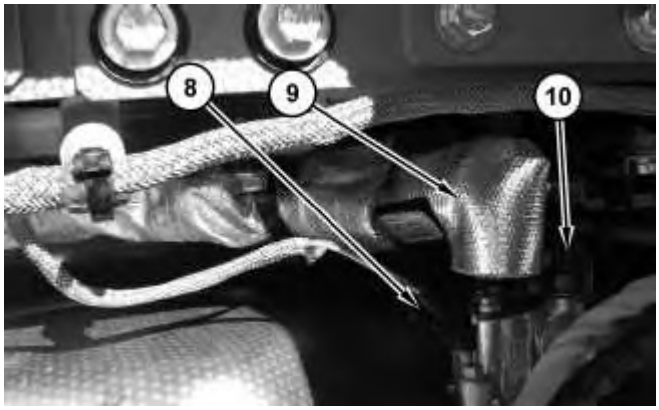

Illustration 6 g03409644

5. Disconnect harness assembly (8) and DEF hose assembly (9). Disconnect coolant hoses (10).

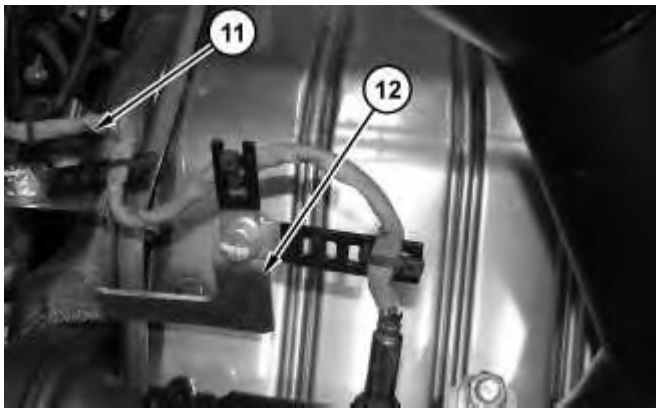

Illustration 7 g03409693

6. Disconnect harness assemblies (11). Disconnect bracket assemblies (12).

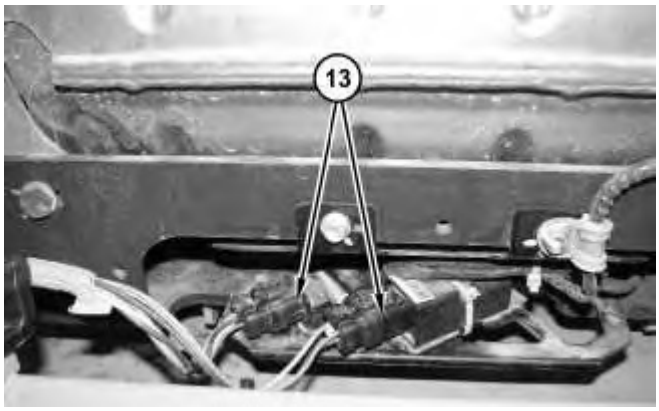

Illustration 8 g03409696

7. Disconnect harness assemblies (13).

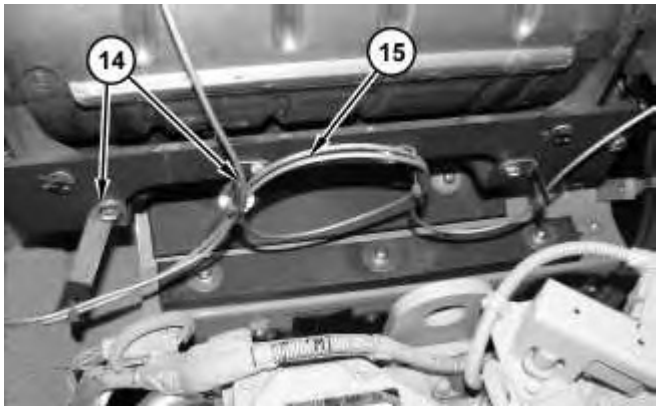

Illustration 9 g03409699

8. Disconnect clips (14) and relocate harness assembly (15).

Illustration 10 g03409704

9. Open pump compartment and remove bolts (16).

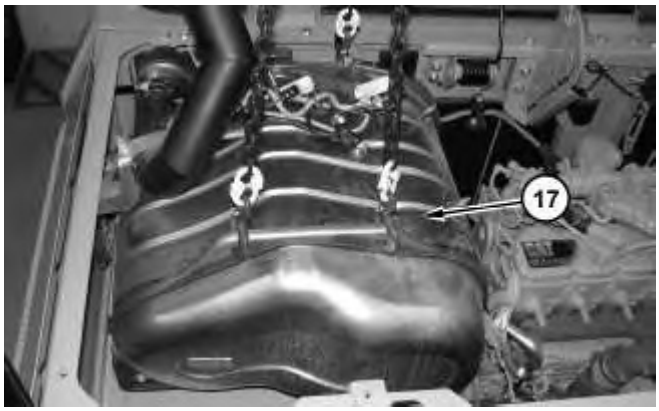

Illustration 11 g03409717

10. Use a suitable lifting device to remove clean emissions module (17). The weight of clean emissions module (17) is approximately 109 kg (240 lb).

Installation Procedure

1. Install clean emissions module (17) in the reverse order of removal.

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i05398133

Cooling System Package (Radiator, Hydraulic Oil Cooler, and Aftercooler) - Remove and Install

SMCS - 1063-010; 1353-010; 1374-010

Removal Procedure

Table 1

Required Tools			
Tool	**Part Number**	**Part Description**	**Qty**
A	189-0409	Shackle As	2

WARNING

Personal injury can result from hydraulic oil pressure and hot oil.

Hydraulic oil pressure can remain in the hydraulic system after the engine has been stopped. Serious injury can be caused if this pressure is not released before any service is done on the hydraulic system.

Make sure all of the work tools have been lowered to the ground, and the oil is cool before removing any components or lines. Remove the oil filler cap only when the engine is stopped, and the filler cap is cool enough to touch with your bare hand.

WARNING

Personal injury can result from hot coolant, steam and alkali.

At operating temperature, engine coolant is hot and under pressure. The radiator and all lines to heaters or the engine contain hot coolant or steam. Any contact can cause severe burns.

Remove cooling system pressure cap slowly to relieve pressure only when engine is stopped and cooling system pressure cap is cool enough to touch with your bare hand.

Do not attempt to tighten hose connections when the coolant is hot, the hose can come off causing burns.

Cooling System Coolant Additive contains alkali. Avoid contact with skin and eyes.

1. Refer to Operation and Maintenance Manual, "Hydraulic System Oil - Change" for the correct draining and filling procedures.
2. Refer to Operation and Maintenance Manual, "Cooling System Coolant (ELC) - Change" for the correct draining and filling procedures.

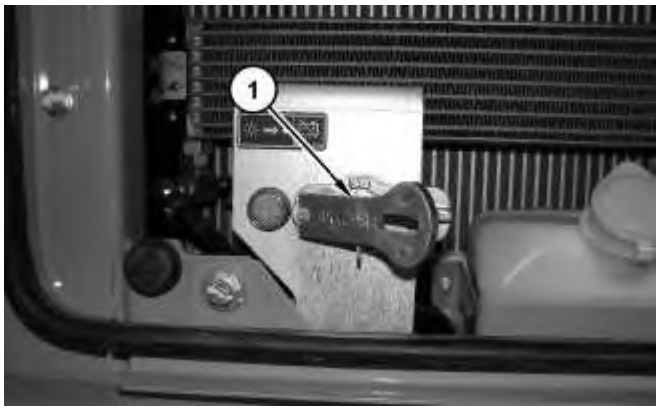

Illustration 1 g03411316

3. Turn disconnect switch (1) to the OFF position.

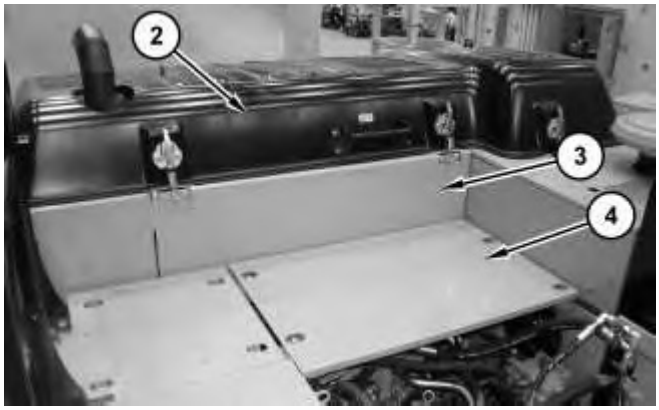

Illustration 2 g02404138

4. Open hood (2) and remove panels (3) and (4).

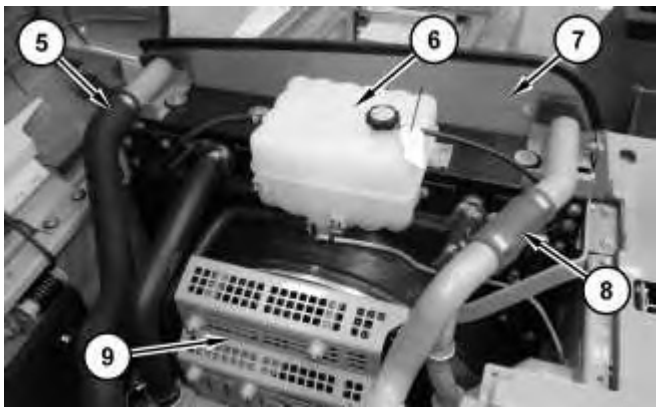

Illustration 3 g02404163

5. Disconnect hoses (5) and (8). Remove tank (6) and panel assembly (7). Remove guard assembly (9).

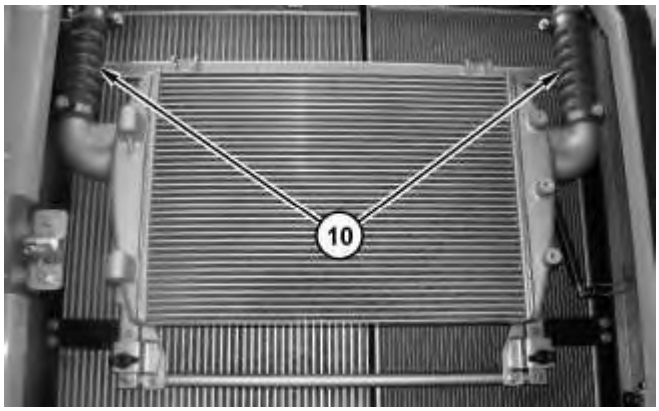

Illustration 4 g02404679

6. Disconnect hoses (10).

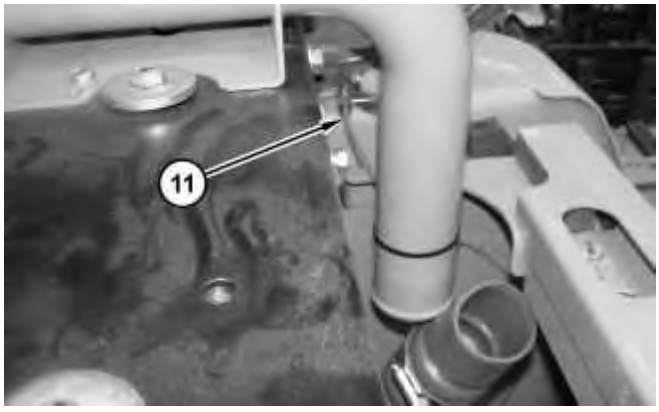

Illustration 5 g02406462

7. Disconnect hose (11).

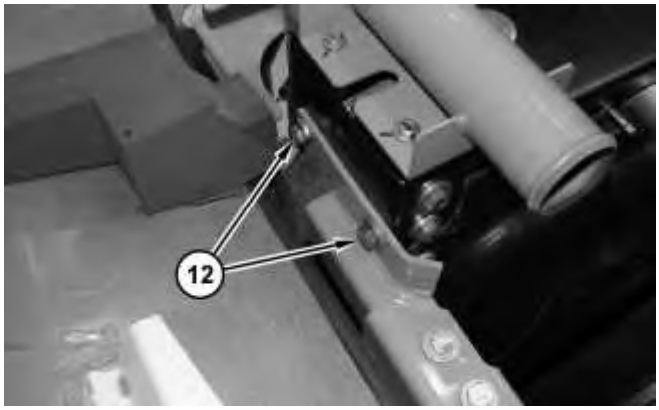

Illustration 6 g02406465

8. Remove bolts (12).

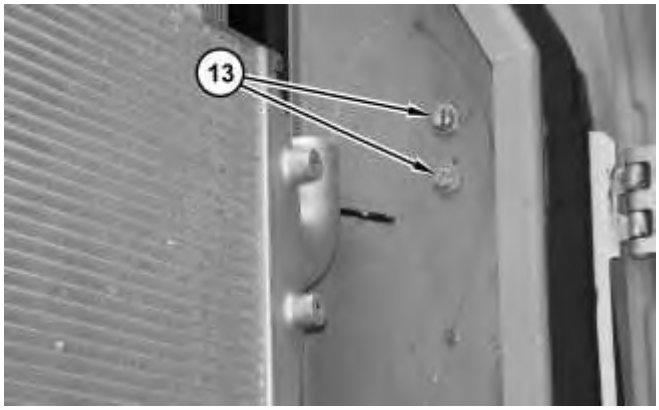

Illustration 7 g02406468

9. Remove bolts (13).

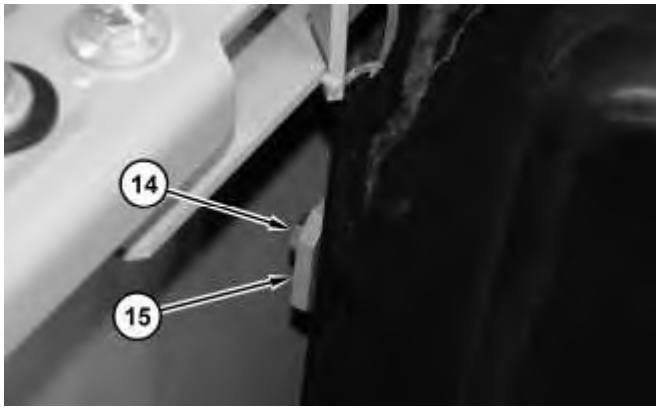

Illustration 8 g02406469

10. Remove bolts (14) and bracket (15).

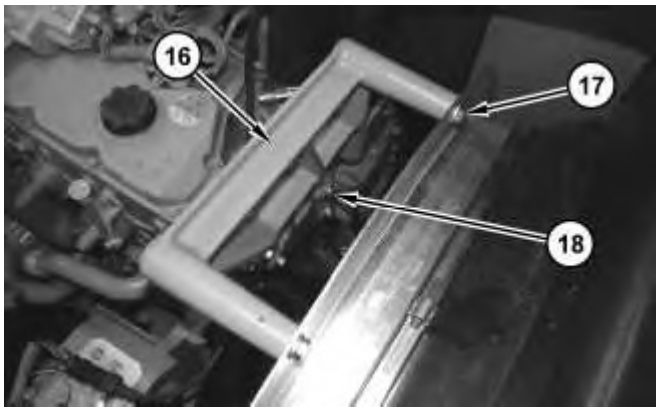

Illustration 9 g02410176

11. Remove bolts (17) and bolts (18). Remove bracket (16).

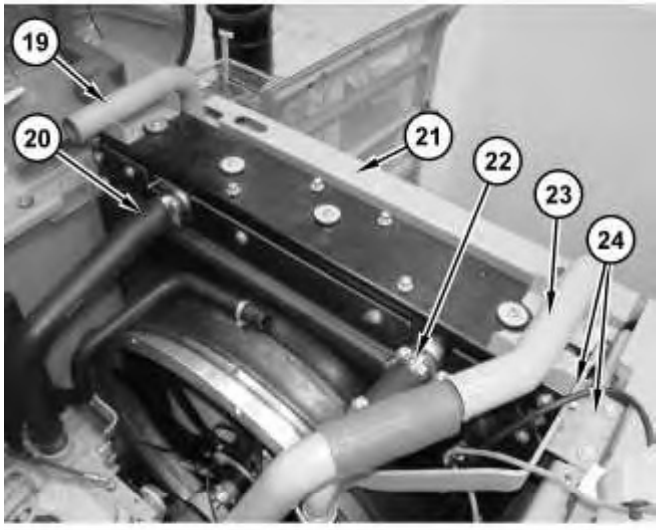

Illustration 10 g02406470

12. Remove tube assemblies (19) and (23). Disconnect hoses (20) and (22). Remove brackets (24). Remove support assembly (21).

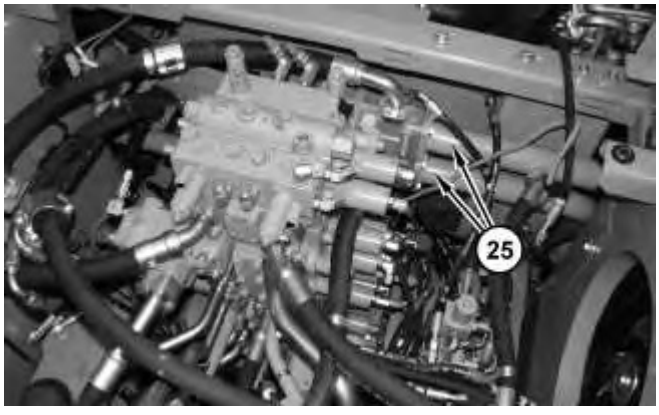

Illustration 11 g02406472

13. Loosen tube assemblies (25).

Illustration 12 g02410182

14. Remove bolts (26) and guard assembly (27).

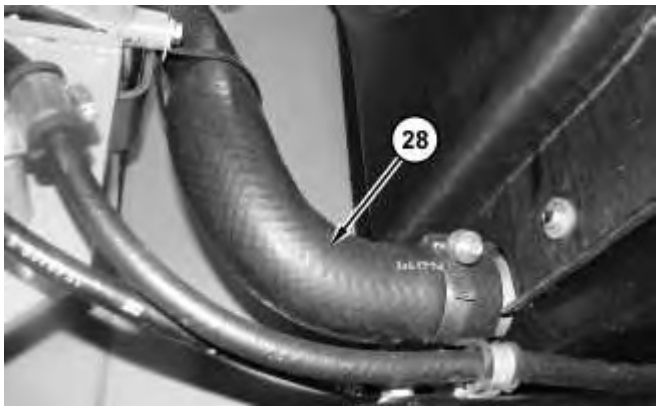

Illustration 13 g02406473

15. Disconnect hose (28).

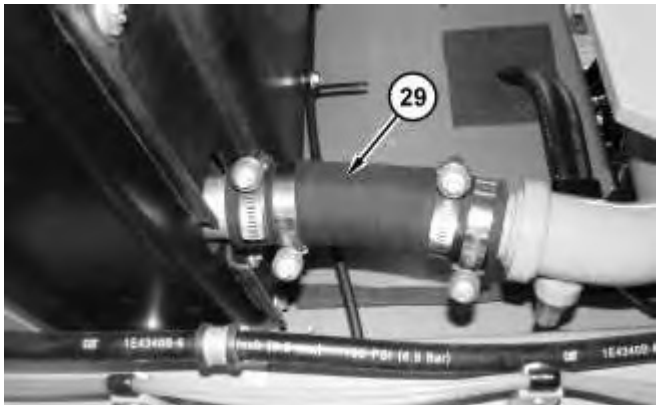

Illustration 14 g02406475

16. Disconnect hose (29).

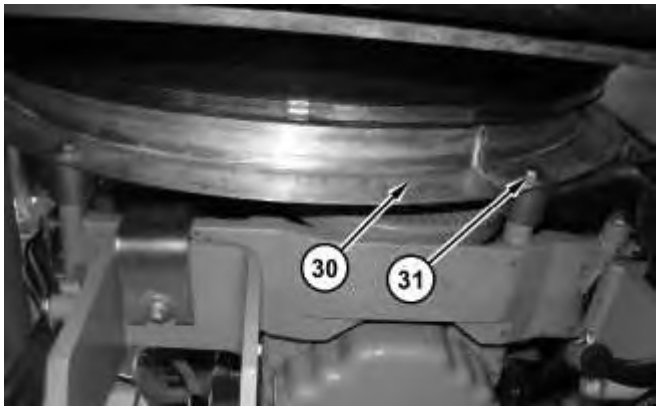

Illustration 15 g02406476

17. Remove bolts (31) and reposition fan shroud (30).

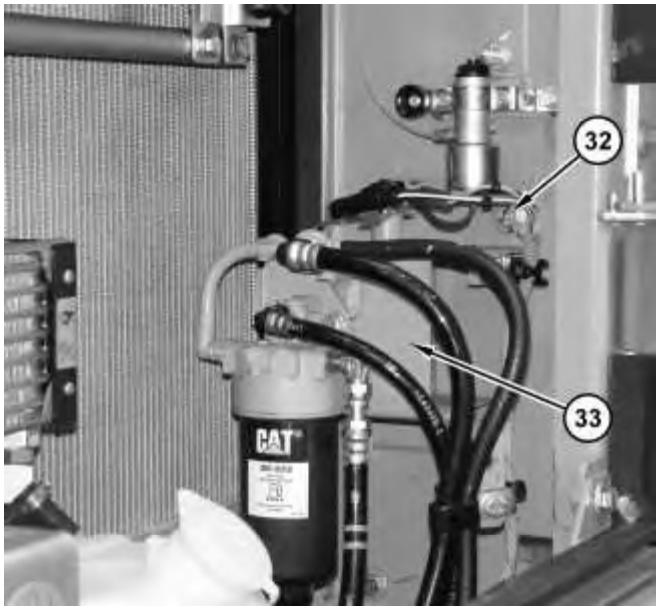

Illustration 16 g02406478

18. Remove bolts (32). Repostion fuel filter assembly (33).

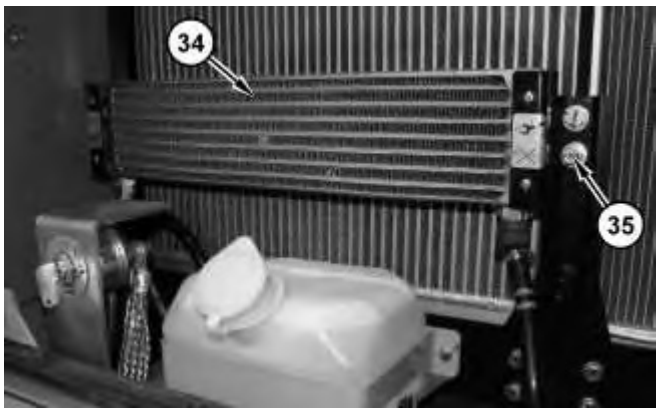

Illustration 17 g02407297

19. Remove bolts (35). Reposition fuel cooler (34).

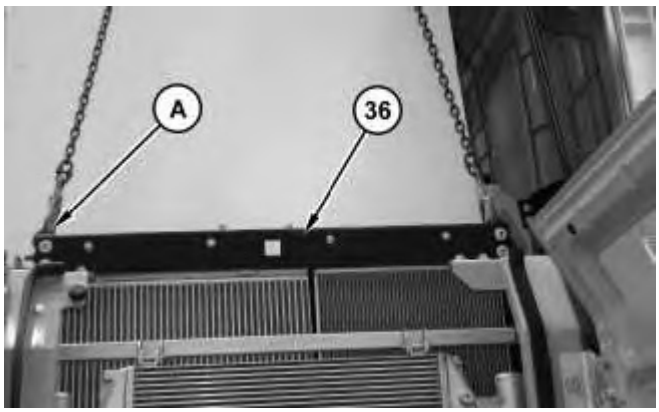

Illustration 18 g02406479

20. Attach Tooling (A) and a suitable lifting device to cooling package (36). The weight of cooling package (36) is approximately 195 kg (430 lb).

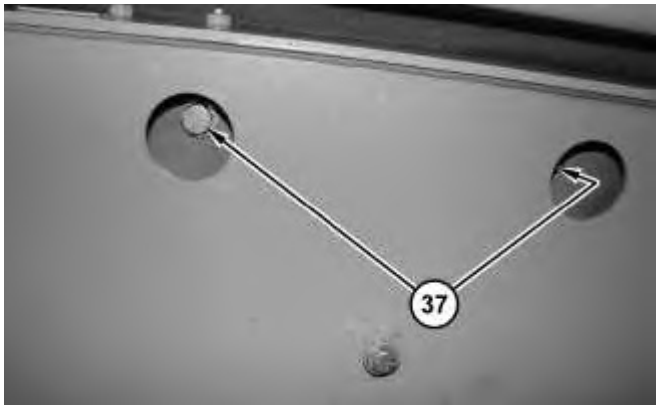

Illustration 19 g02406481

21. Remove bolts (37).

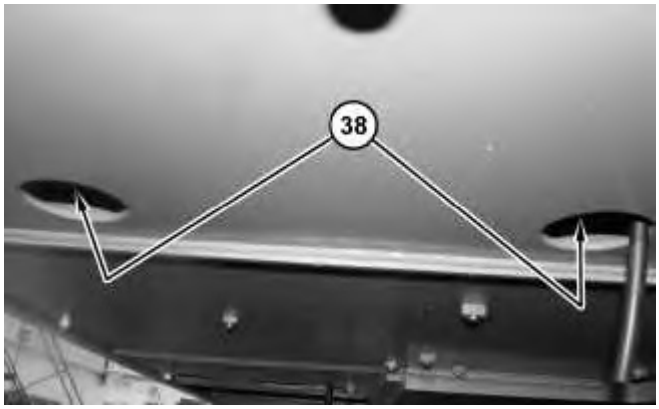

Illustration 20 g02406482

22. Remove bolts (38).

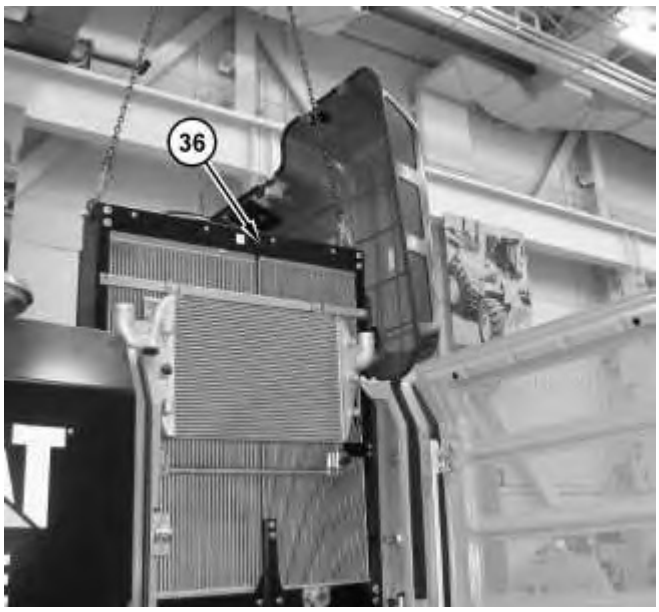

Illustration 21 g02407296

23. Remove cooling package (36).

Installation Procedure

1. Install cooling package (36) in the reverse order of removal.
    a. Tighten bolts (31) and (17) to a torque of 30 ± 7 N·m (22 ± 5 lb ft).

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